

PATENT COOPERATION TREATY

Rec'd PCT/PTO 08 APR 2005
PCTFrom the
INTERNATIONAL SEARCHING AUTHORITYTo:
ROY F. HOUSE
5726 ETTRICK DRIVE
HOUSTON, TX 77035WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year) 26 MAY 2005

Applicant's or agent's file reference

TUC-26A

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/US04/33237

International filing date (day/month/year)

08 October 2004 (08.10.2004)

Priority date (day/month/year)

International Patent Classification (IPC) or both national classification and IPC

IPC(7): C09K 7/02 and US Cl.: 507/110, 111, 112, 140, 212, 213, 214, 269

Applicant

TEXAS UNITED CHEMICAL COMPANY, LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

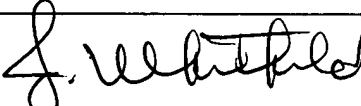
Name and mailing address of the ISA/ US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
Facsimile No. (703) 305-3230

Authorized officer

Philip C. Tucker

Telephone No. 571-272-1700


For

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US 237

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐ a sequence listing

☐ table(s) related to the sequence listing

b. format of material

☐ in written format

☐ in computer readable form

c. time of filing/furnishing

☐ contained in international application as filed.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US04/33237

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>Please See Continuation Sheet</u>	YES
	Claims <u>Please See Continuation Sheet</u>	NO
Inventive step (IS)	Claims <u>Please See Continuation Sheet</u>	YES
	Claims <u>Please See Continuation Sheet</u>	NO
Industrial applicability (IA)	Claims <u>Please See Continuation Sheet</u>	YES
	Claims <u>Please See Continuation Sheet</u>	NO

2. Citations and explanations:

Claims 1, 4, 10, 12, 15, 21, 23, 26 and 32 lack novelty under PCT Article 33(2) as being anticipated by Cowan (US 5363918).

Cowan teaches a drilling and cementing fluid which comprises polymeric viscosifiers, fluid loss agents such as starch, and a magnesium oxide such as MAGCHEM 10 (see the examples). MAGCHEM 10 is a large particle size slowly dissolving magnesia which would have an activity index within the scope of the present invention.

Claims 1, 4, 10, 12, 15, 21, 23, 26 and 32 lack novelty under PCT Article 33(2) as being anticipated by Chang (US 6165947).

Chang teaches a drilling and completion fluid (column 1, lines 10-12) which comprises HEC which is both a viscosifier and fluid loss agent, and a magnesium oxide such as MAGCHEM 10-135 (see Table A). MAGCHEM 10-135 is a large particle size slowly dissolving magnesia which would have an activity index within the scope of the present invention.

Claims 2, 3, 6-9, 11, 13, 14, 16-20, 22, 24, 25, 27-31 and 33 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest the specific viscosifiers or fluid loss control agents of these claims.

Claims 1-33 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US04/33237

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

V.1. Reasoned Statements:

The opinion as to Novelty was positive (Yes) with respect to claims 2, 3, 6-9, 11, 13, 14, 16-20, 22, 24, 25, 27-31, 33
The opinion as to Novelty was negative (No) with respect to claims 1, 4, 10, 12, 15, 21, 23, 26, 32
The opinion as to Inventive Step was positive (Yes) with respect to claims 1, 2, 3, 6-9, 11, 13, 14, 16-20, 22, 24, 25, 27-31, 33
The opinion as to Inventive Step was negative (NO) with respect to claims 1, 4, 10, 12, 15, 21, 23, 26, 32
The opinion as to Industrial Applicability was positive (YES) with respect to claims 1-33
The opinion as to Industrial Applicability was negative (NO) with respect to claims NONE